

Black henbane

Hyoscyamus niger L.



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Other common names: insane root, stinking nightshade, fetid nightshade, hog's beam

Family: Solanaceae (Nightshade)

USDA Code: HYNI

Bayer Code (WSSA): HSYNI

Life cycle classification: Biennial forb

Legal Status: Colorado Noxious weed (general weed)

Native to: Eurasia

Entry into Colorado: No information available

Current distribution in Colorado: Black henbane is established on the Front Range along lower Boulder Creek (Weber 1976), and is also found on the Western Slope (A. Green, pers. comm. cited in CNAP 2000). Black henbane has spread throughout the United States, especially in the Northeast, Midwest, and Rocky Mountains (Morishita 1991).



Biology

Seasonal development: Black henbane usually emerges in May and flowers from June to September, with peak flowering usually in July. Two rows of pineapple-shaped fruits appear in the fall (CNAP 2000).

Reproduction

Most commonly reproduces by: Seed

Numbers of seeds/plant: Each fruit capsule contains hundreds of tiny seeds (CNAP 2000).

Description

Roots: Taproot thick, fleshy

Stems: Mature plants are coarse, hairy, and 1-3 feet tall (CNAP 2000).

Leaves: Leaves are alternate, coarsely toothed to shallowly lobed and pubescent with a characteristically foul odor (Whitson et al. 2000).

Flowers: Flowers are brownish-yellow in appearance with dark purple veins, and are borne on long racemes in the axils of the upper leaves (CNAP 2000).

Fruits & seeds: Fruits are approximately 1 inch long, five-lobed, and clustered on two rows that emerge in the fall. Each fruit capsule contains hundreds of tiny seeds. Seeds are kidney-

shaped to oval, brownish-gray to black, and pitted (CNAP 2000).

Value & Uses

Wood products: No information available

Importance to/impact on livestock & wildlife:

Palatability: Black henbane is poisonous to livestock. However, because of the foul odor of the plant, livestock will seldom graze it, and few cases of livestock poisonings have been reported (Morishita 1991).

Nutritional value: Poisonous

Cover value: No information available

Value for rehabilitation of disturbed sites: No information available

Other uses & values: The plant has a long history of human use for its medicinal and poisonous properties and even in sorcery in the Middle Ages (WSSA website, Whitson et al. 2000) though it is toxic to both humans as well as livestock at the right dosage Whitson et al. 2000).

Infestations

Habitat: Black henbane is commonly found in pastures, fencerows, roadsides, waste places, and riparian areas. It does well in most soils, and will grow in a variety of environmental conditions. Black henbane growth is enhanced by increased levels of soil nitrogen (Morishita 1991).

Impacts/Threats

Special Challenges to Management: No information available

Control Methods

Physical

Manual: Cutting, hoeing, or digging isolated plants prior to seed production can be an effective means of controlling this plant (Morishita 1991). Since seeds may remain viable in the soil for several years, any method that does not kill the plant must be repeated throughout the season and for several years (CNAP 2000).

Mechanical:

Cultivation: Cultivation may be used to control this plant prior to seed production (Morishita 1991).

Mowing: Mowing is also a viable control option.

Cultural: Research needed

Biological: There is no evidence of any biological control method for black henbane (CNAP 2000).

Insects: None available

Pathogens: None available

Chemical

Conventional:

Trade Name (common name)	Product/Acre (Active ingredient/Acre)	Remarks
Escort (metsulfuron)	1.0 oz	Apply during bolting
Many trade names (2,4-D)	(1 lb)	
Tordon (picloram)	1 lb (4 pt)	Provides residual control of germinating seeds the fol- lowing year.
Vanquish/Clarity (dicamba)	1 lb (1 qt)	

Organic: Research needed

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing.

NOTICE: Mention of pesticide products in this profile does not constitute endorsement of any material.

Additional comments:

Contacts:

Links:

Colorado Dept. of Agriculture, Division of Plant Industry
<http://www.ag.state.co.us/DPI/weeds/Weed.html>

Colorado Weed Management Association
<http://www.cwma.org>

Colorado Weed Management Guide
[http://www.cepep.colostate.edu/WeedGuide/Weed Guide 2004.pdf](http://www.cepep.colostate.edu/WeedGuide/Weed%20Guide%202004.pdf)

WSSA Weed Info
<http://www.wssa.net>

References:

Beck, K.G., S.K. McDonald, S.J. Nissen, P.H. Westra. 2002. Colorado Weed Management Guide. Colorado State University Cooperative Extension. Fort Collins, CO. XCM-205.

Colorado Natural Areas Program. 2000. Creating an Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values. Colorado Natural Areas Program, Colorado State Parks, Colorado Department of Natural Resources; and Division of Plant Industry, Colorado Department of Agriculture. Denver, CO. pp 259-260. http://parks.state.co.us/cnap/IWM_handbook/IWM_index.htm

FEIS - Fire Effects Information System. 1996. Prescribed Fire and Fire Effects Research Work Unit, Rocky Mountain Research Station (producer), US Forest Service. <http://www.fs.fed.us/database/feis/> [Version 12Mar 98].

Morishita, D.W. 1991. Dalmatian toadflax, yellow toadflax, black henbane, and tansymustard: importance, distribution, and control. In L.F. James, J.O. Evans, M.H. Ralphs and R.D. Child, eds. Noxious Range Weeds. Westview Press, Boulder, CO.

- Stubbendieck, J., G.Y. Friisoe, M.R. Bolick. 1995. Weeds of Nebraska and the Great Plains. Nebraska Department of Agriculture. Lincoln, NE. pp 104-105.
- USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- Weber, W.A. 1976. Rocky Mountain Flora. University Press of Colorado, Niwot, CO.
- Whitson, T.D.(ed.), L.C. Burrill, S.A. Dewey, D.W. Cudney, B.E. Nelson, R.D. Lee, R. Parker. 2000. Black henbane. *Weeds of the West*. Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services and the University of Wyoming. pp. 558-559.